

AMENDMENTS TO THE DRAWINGS

Figures 1 and 3.

Attachment: Replacement Sheet(s)

REMARKS

Claims 8-17 and 19 are all the claims pending in the application. Claims 8, 10, 15-17 and 19 are amended. New claims 20-23 are added. Support for the amendment is at paragraph [0027] of the original application and in the Figures.

This amendment is being filed with an RCE in order to permit Applicant and his representatives to conduct an interview with the Examiner, to demonstrate the patentability of the claims as now presented and to resolve all outstanding issues. Applicant is grateful for the time and consideration given by the Examiner and his supervisor.

New Claims

Applicants have added new claims 20 and 21, which depend from independent claim 15 and new claims 22 and 23, which depend from independent claim 16. These claims further specify that (1) the axial slots have an axial length which is larger than the axial length of the fins and/or (2) the slots the slots within which the fins move extend “virtually over an entire axial length of said radially spreadable element,” as illustrated in Figs 2 and 5, and as taught at paragraph [0027]. These features, in combination with the requirement in the parent claim for fins that engage the slot, are not found in the prior art, particularly the patent to Kupski. There the recess 30 is a short indentation in a very differently structured spreading element and clearly does not have the same function as the slot in the present application, which is to maintain the relationship between the radially spreadable element and the interior element as the interior element moves a substantial distance along the screw due to rotation. Moreover, it allows as the expressly recited gap according to the invention permits, the traveling of the spreading element without rotation thereof onto the interior element if axial pressure is extended onto the stick, leading to the beneficial additional clamping due to the concomitant further spreading of the radially spreadable element.

Election of Species

Claims 13 and 14 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a non-elected species, there being no allowable generic or linking claim. Nonetheless, Applicant respectfully submits that these claims are allowable because their parent claim 10 is allowable.

Drawings

The drawings filed on December 10, 2007 are acceptable, but contain a discrepancy that forms the basis for an objection. The Examiner notes that the two fins in Figure 1 have been identified as "41" and "42", while the same two fins have been identified as "41" in Figure 3. Applicants are correcting Fig. 3, so that it is consistent with the specification, which uses separate numbers for the slots in which the fins move.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter under 37 CFR 1.75(d)(1) and MPEP § 608.01(o). The Examiner notes that "the inner cone opening from an apex towards the end of the inner tube" recited in claim 19, line 10 has no corresponding teaching in the specification. Applicants respectfully note that the drawings clearly support the limitation, but are prepared to amend the specification to specifically identify the "apex" in the inner cone. Fig. 1 would be amended to identify the apex. This amendment does not involve new matter but is offered solely to provide concordance between the specification and the claims.

Claim Objections

Claims 8 and 10 are objected to because in claim 8, "at axially" in line 26 should be -- axially at--; and, in claim 10, "it" in line 24 should be defined.

Applicants have made appropriate correction to these claims as well as claims 15-17 and 19. In addition, a typographical error has been corrected. Applicant notes that the Examiner has assumed these corrections have been made.

Claim Rejections - 35 USC § 103

Claims 8, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lenhart (DE-29,706,849) in view of Neuheiten (CH-267,177). This rejection is traversed for at least the following reasons.

As a preliminary matter, Applicants respectfully submit that the Examiner has engaged in improper dissection of multiple references into separate component parts without recognition of their dependent interrelationships, improper combination of bits and pieces of the dissected references using only Applicant's teachings as a template, and improper combination of the bits

and pieces without recognition of the impracticality and inoperability of the bits and pieces as combined for the intended purpose and application.

The present invention is a simple, elegant and economical solution to a problem with a mechanism for variably extendable sticks, as for hiking and skiing. The invention provides highly desirable stability under axial load accompanied by a unique ability to increase the holding force as the axial load increases. None of the prior art can provide such capability, alone or in combination. The design is so unique that multiple unauthorized and infringing copies are being imported. The Examiner is respectfully requested to properly apply the Graham factors and acknowledge the deficiencies of each prior art reference, and the unique contribution that has been made by the inventor over the prior art in the form of the invention as defined by the pending claims.

Lenhart

First, Applicant respectfully notes that the inventor of the present application, Klaus Lenhart, is the inventor of the Examiner's new primary reference to Lenhart.

Second, Applicant respectfully notes that the inventor Lenhart will be submitting a Declaration under Rule 132, demonstrating that the two embodiments in Figs 1 and 5 of Lenhart, are unrelated and do not represent compatible teachings. Further, the Declaration will demonstrate that the Examiner's unsupported assertion as to how a two-cone structure would be easily converted to a one-cone structure, without considering all of the other accompanying features that are necessary to provide structural stability and reliability in practice, is flawed.

Lenhart Embodiments Are Unrelated and Incompatible

In framing the rejection, the Examiner refers to Figures 1 and 5 together and characterizes the teaching as being directed to "an adjustable-length pole comprising at least one outer tube 12, an inner tube 11 structured, an adjusting screw 118', a radially spreadable element 116, and an axially moveable interior element 117." However, this initial description ignores the fact that Fig. 1 has a single screw 18 with threads in one direction, while Fig. 5 has two screws 118 and 118' with threads in opposite directions. The opposed threads permit rotation of both cones to provide stability and stops against movement.

Finally, as will be demonstrated by the Declaration of Lenhart, not only is the operation of the two designs different, there is no link between them and they are incompatible with each other and with the presently claimed invention. Specifically, in the embodiment shown in Figure 5 the spreading element has an upper and lower cone aperture. Correspondingly there is an upper and a lower interior element both having an internal threading of opposite direction of rotation cooperating with an axial screw, which has opposite direction of rotation in the lower region (118') to the direction of rotation in the upper region (118). One can see clearly that the spreading element simply cannot abut on the upper end of the inner tube, and neither with a limit stop at the free end of the screw.

So when taking this document as the point of departure the Examiner already mixes two different embodiments, which are by no means particularly connected in the detailed description. The combination used by the examiner is not motivated by any disclosure.

Lenhart Does Not Teach Express Features of the Invention

There are numerous differences between the structure of Lenhart and its resultant principles of operation and that of the claimed invention.

First, the element alleged to correspond to the claimed “radially spreadable element” is not a single inner cone “opening towards the end of the inner tube. It opens in an opposite direction, as is clear from an examination of Fig. 1 of the present application and Lenhart’s Fig. 1. This precludes the additional clamping effect attained by the claimed structure.

Second, the element alleged to correspond to the claimed “interior element” does not have an outer cone tapering towards the free end of the adjusting screw. It opens in an opposite direction, as is clear from an examination of Fig. 1 of the present application and Lenhart’s Fig. 1. Similarly, the structure in Lenhart does not provide the additional clamping effect found in the claimed invention.

Third, the screw head 26 or 126 is not a “limit stop” disposed on the free end of the adjusting screw 118' to stop the bottom cone 117 or the spreadable element 116. Also, the end of the pole 11/111 is not a limit stop, as the structure does not move that far. Furthermore the spreading element is not able to move between a limit stop disposed at an end of the inner tube and a limit stop disposed at the free end of the adjusting screw. Indeed there is a limit stop

disposed at an end of the inner tube (19), but there is no upper limit stop, this would simply not make sense.

Fourth, while there is a distance (A2 in the Examiner's annotated illustration of Lenhart's Fig. 5) between the end of the pole 111 and the limit stop 126 is larger than the axial length of the radially spreadable element 116 by a gap distance A3, the spreadable element 116 is not designed to move axially within the distance between the limit stops including the gap distance A3.

Neuheiten

Neuheiten Does Not Teach a Modification of Lenhart

The Examiner admits that Lenhart fails to disclose the inner cone 122' being only one single inner cone of the spreadable element since spreadable element has two inner cones. The Examiner looks to Neuheiten for a teaching, "between Figures 5 and 6, that a spreading element can have one inner cone or two inner cones as similarly taught in Lenhart" and asserts that Neuheiten teaches alternative configurations in order to minimize parts so that the lower cone only holds. The Examiner redesigns Lenhart's Fig. 5 and asserts that it would have been obvious to one of ordinary skill in the art "to make the inner cone 122' of Lenhart be the only one single inner cone to minimize the number of parts as an alternative configuration so that the lower cone only holds."

Neuheiten Has Incompatible Teachings of Single and Dual Inserts

The Examiner specifically refers to figures 5 and 6 for a teaching supporting a modification of a two cone design into a one cone design.

First, it should be noted that the invention is the combination of all elements in a working assembly that provides significant advantages, and not just the elimination of one cone from a two cone design, as the Examiner appears to assume.

Second, it is noted that in figure 5, the lower cone 20 is a one piece unit with the actual screw 12, so it rotates when the lower tube is rotated. Furthermore the screw only has a threading in the uppermost portion. The second upper cone 21 has no threading, but at the free end of the screw 12 there is a nut like element 14 which has an internal threading. When rotating the inner tube 7 with respect to the upper tube 6, this element 14 travels downwards, presses the element 21 further into the spreading element 18, and the spreading element is extended by

concomitant action of elements 20 and 21. There is no limit stops according to our claim for the spreading element, and there is no interior element having a cone and an internal threading.

The embodiment in figure 6, which is described in the description to distinguish from the one of figure 5 only by the fact that for the spreading of the spreading element 18 only one single cone is used, indeed only lower cone 20 is present. This cone however again forms one-piece with the screw 12, so this construction is actually functionally identical to the one in DSI, which Applicant discussed extensively in response to previous office actions.

Under the Graham Factors the Invention is Unobvious

As reiterated by the Supreme Court in the KSR decision, the Examiner must apply the Graham factors in framing a rejection under 35 U.S.C. § 103. Those factors include an identification of the differences between the prior art and the claimed invention. This has not been done by the Examiner, as if such identification were undertaken, based upon the foregoing analysis by the Applicant, the clear incompatibility of the references and their inapplicability to the claimed invention would be clear.

In sum, the Examiner is taking individual pieces from multiple references without any consideration of how these pieces operate in their environment, and then combines them in a manner that (1) presents technical problems and barriers against effective and practical operation, and (2) has no teaching or direction for their assembly in a manner that is even close to the unique and effective design of the present invention. The Examiner is going beyond any limit to hindsight by assuming that Neuheiten would suggest to the person skilled in the art, to simply skip the upper part of figure 5 of Lenhart, as the two constructions of Lenhart and Neuheiten are of completely different nature. In particular neither Lenhart nor Neuheiten has the additional clamping effect according to Applicant's invention.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lenhart, DE-29,706,849, in view of Neuheiten, CH-267,177, and further in view of DSI, DE 8,004,343U1. This rejection is traversed for at least the following reasons.

The Examiner repeats the basis for combining Lenhart and Neuheiten, as presented with regard to claim 8. This combination is flawed and improper, as already demonstrated.

The Examiner looks to DSI for a teaching in Figure 1 of a radially spreadable element 10 configured as a pot, as claimed. The Examiner asserts that DSI teaches a modification of Lenhart in view of Neuheiten to change the configuration of the spreadable element 116, as modified by Neuheiten, with that of DSI to use with the spreading element modified to have only one single inner cone.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lenhart (DE-29,706,849) in view of Neuheiten (CH-267,177), and further in view of Kupski, (3,145,669). This rejection is traversed for at least the following reasons.

The Examiner repeats the basis for combining Lenhart and Neuheiten, as presented with regard to claim 8. This combination is flawed and improper, as already demonstrated.

The Examiner admits that Lenhart and Neuheiten fail to disclose the interior element 117 having protruding fins respectively guided in the axial slots of the spreading element 32. The Examiner looks to Kupski for such teaching, pointing to Fig. 5 and an alleged illustration of “an interior element 17 having protruding fins 33 guided in axial slots 30 of a spreading element 16 to prevent the interior element from rotating relative to the spreading element.” The Examiner asserts that this structure of a boss 33 that engages slots 30 in a table would lead to the provision of “a fin in the interior element of Lenhart guided in the axial slots of the spreading element of Lenhart to prevent the interior element from rotating relative to the spreading element.”

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lenhart, (DE-29,706,849), in view of Neuheiten (CH-267,177), and further in view of DSI (DE 8,004,343U1), and Kupski (3,145,669). This rejection is traversed for at least the following reasons.

The Examiner repeats the basis for combining Lenhart and Neuheiten, as presented with regard to claim 8. This combination is flawed and improper, as already demonstrated.

The Examiner admits that Lenhart and Neuheiten fail to disclose one single inner radially spreadable element being configured as a pot having a base penetrated by a free end area of the adjusting screw, facing away from the inner tube 11. Further, the Examiner admits that Lenhart fails to disclose the interior element 117 having protruding fins respectively guided in the axial

slots of the spreading element 32. The Examiner looks to DSI for a teaching that would result in a change in the configuration of the spreadable element 116 of Lenhart, as modified by Neuheiten, with that of DSI to use with the spreading element modified to have only one single inner cone in the form of a pot. The Examiner looks to Kupski in Figure, 5 for “a fin in the interior element of Lenhart guided in the axial slots of the spreading element of Lenhart to prevent the interior element from rotating relative to the spreading element.”

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lenhart, (DE-29,706,849), in view of Neuheiten (CH-267,177), and further in view of Mazzolla, (4,238,164). This rejection is traversed for at least the following reasons.

The Examiner repeats the basis for combining Lenhart and Neuheiten, as presented with regard to claim 8. This combination is flawed and improper, as already demonstrated.

The Examiner admits that Lenhart and Neuheiten fail to disclose one single inner radially spreadable element being configured as a pot having a base penetrated by a free end area of the adjusting screw, facing away from the inner tube 11. Further, the Examiner admits that Lenhart fails to disclose the inner cone 122' being only one single inner cone of the spreadable element since spreadable element has two inner cones. Further, Lenhart fails to disclose the radially spreadable element 116 furnished on an exterior periphery with four notches all axially and centrally symmetrical to each other and running in a longitudinal direction.

Mazzolla

The Examiner looks to Mazzolla for such teachings, particularly in Figure 1 where there is “a radially spreadable element 12 furnished on an exterior periphery with three notches 44 all axially and centrally symmetrical to each other and running in a longitudinal direction to mate with an inner tube having corresponding projections 48.” The Examiner asserts that it would have been obvious to provide the radially spreadable element 12 with notches on the exterior periphery of the spreadable element such that the notches are centrally symmetrical to each other and running in a longitudinal direction to mate with the inner tube which can be modified to include projections mating with the notches.

Here again the Examiner looks to structures that are wholly incompatible with and inapplicable to the claimed invention. Mazzolla is a completely different structure that has a

clamping mechanism that has nothing to do with the fin and slot structure claimed in claim 16. Specifically, the claim requires (1) the radially spreadable element is configured as a pot having a base the is penetrated by a free end area of the adjusting screw, facing away from the inner tube, and (2) the interior element has a plurality of radially protruding fins, each of which is guided in an axial slot of the radially spreadable element.

Mazzolla has a mandrel 10 that would remotely correspond to the interior element as claimed, and the mandrel has no fins. The collet 12 receives the mandrel 10, and would remotely correspond to the spreadable element, but it is not shaped like a pot and it has no axial slot to receive a fin. To the extent that the Examiner points to projections on the outer tube 46, these clearly do not meet the claim limitations. Finally, there is nothing that the Examiner can point to that would lead one skilled in the art to even remotely consider modifications of Lenhart and or Neuheiten to adopt any features from Mazzolla.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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